BRIEF REPORT

Contraception for Adolescents and Young Adults in the Inpatient Setting: The Providers' Perspective

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ABSTRACT

OBJECTIVES: To assess pediatric providers' attitudes and barriers to initiating a contraceptive method in the inpatient setting.

METHODS: Pediatric attending physicians and trainees from 5 academic institutions were surveyed about contraceptive prescribing practices, attitudes, and potential barriers to initiating contraception in the inpatient setting.

RESULTS: In 2016, 271 pediatric providers (34.0% were attending physicians, 18.1% fellows, and 47.9% residents) completed the survey; the response rate was 19.2%. Most participants practiced in both inpatient and outpatient settings (95.7% and 85.0%, respectively). More providers felt confident screening for sexual activity among young adults as compared with adolescents (71.9% vs 65.6%). The same was true for discussing contraceptive options (44.0% vs 38.8%, respectively). Inpatient providers reported seeing adolescents and young adults privately, discussing confidentiality, and asking about sex less than half of the time. More than 80% of providers agreed that it would be appropriate to initiate a contraceptive method for inpatients; 35.8% had done so, and 85.2% indicated that having additional consultation would increase initiation of a contraceptive method in the hospital (88.1% felt similarly for long-active reversible contraception methods). General barriers to initiating contraception included insufficient training, insufficient exposure to adolescents and young adults to maintain skills, and lack of time. Barriers specific to the inpatient setting included concerns about follow-up, confidentiality, and interference with the treatment plan.

CONCLUSIONS: Initiation of a contraceptive method in the inpatient setting is acceptable to providers. In our findings, it is suggested that strategies are needed to enhance provision of these services by addressing confidentiality concerns and educating providers.

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Teenage pregnancy, which has steadily declined since its peak in 1990, still accounts for one-fifth of all unintended pregnancies in the United States.[1] This decline has largely been attributed to increased contraceptive use.[2] Patients often have longstanding relationships with their primary care providers that can foster discussion about sensitive topics, including contraception.[3,4] As such, these providers have been the main target of efforts to improve reproductive health care. Multiple national medical organizations recommend that all adolescents and young adults (AYAs) have an annual health visit, during which reproductive health care is discussed in a confidential manner.[5–11] Despite these recommendations, 21.2% of 10- to 17-year-olds and 54.3% of 19- to 22-year-olds have not had a well visit within the past year.[12,13] Even for those AYAs who attended an annual well visit, reproductive health care is not routinely addressed.[14]

Given the significant proportion of AYAs who do not attend annual well visits, researchers have studied the offering of health prevention services in nonprimary care settings.[15–18] Studies revealed that adolescents felt that providing contraceptive counseling and initiation in the emergency department[19,20] and in the inpatient setting[21] were acceptable. However, the perspective of medical providers on contraception initiation in the inpatient setting has not yet been explored. Understanding the physician perspective is key to determining the best practices for providing reproductive health care in the inpatient setting. In this study, we examine pediatric providers' reproductive health care practices, attitudes, and perceived barriers regarding initiation of contraceptive methods, with a particular focus on long-acting reversible contraception (LARC), for AYA women in the inpatient setting. We also explored variation in practice and confidence levels by training status and patient age.[22,23]

METHODS

Between July and August 2016, pediatric departments at 6 California hospitals were approached to participate; the 5 that agreed were e-mailed a link to an online survey, administered via Qualtrics, to their institutionally maintained lists of pediatric physicians. All residents, fellows, and attending physicians within each department and/or division were eligible to participate, regardless of practice location. Participants received reminder e-mails every 2 weeks for a total of 2 reminders. The survey was exempt from our institutional review board.

Measures

Participants were asked about age, race and/or ethnicity, sex, medical training level, time since graduation from medical school, subspecialty, practice setting, and the estimated proportion of patients seen in practice who were adolescents (ages 12–17 years) and young adults (ages 18–26 years). Participants were also queried about reproductive health care screening and contraceptive prescribing practices, confidence in contraceptive screening and counseling, potential barriers to initiating a contraceptive method, and knowledge and attitudes regarding sensitive service laws, including how parental knowledge and approval affect prescribing practices (see tables for more details). Of note, in California, all minors can consent to contraceptive services (except sterilization), and their confidentiality must be maintained. Because this was a novel pilot study, and a validated survey was not available, we adapted questions from previous studies.[24,25] The survey was piloted with a group of pediatric specialists and was revised on the basis of responses and feedback.

Analysis

Data were analyzed by using SPSS Version 23 (IBM, SPSS Statistics, IBM Corporation, Armonk, NY) and JMP Pro Version 12.1.0 (SAS Institute, Inc, Cary, NC). Paired *t* tests were used to compare practice behaviors and acceptability about initiating contraception between AYAs, and repeated measures of analysis of variance were used to determine if confidence measures regarding reproductive counseling and barriers to initiating contraception varied by training status (trainee versus attending). The *P* value was generally set to .05; $P < .01$ was used for multiple comparisons.

RESULTS

Demographics

A total of 271 providers consented to participate in the study; between 209 and 259 providers responded to each question. The response rate was ∼19.2% (41.1% among trainees). Of the participants, 34.0% were attending physicians, 18.1% were fellows, and 47.9% were residents; 76.4% were women; and the sample was racially and ethnically diverse. The majority (90.4%) practiced in an academic medical center and represented all stages of training and a variety of subspecialties, with participants most likely to practice in cardiology, hematology and/or oncology, critical care medicine, and gastroenterology. More than 85.0% of participants reported practicing in both inpatient and outpatient settings. Nearly two-thirds of participants had graduated from medical school within the past 5 years. On average, 30.5% of their patients were adolescents, and 10.0% were young adults. See Table 1 for more details.

General Confidence in Providing Reproductive Health Care

Compared with adolescents, providers felt more confident (very and completely confident) counseling about reproductive care for young adults than for adolescents, including screening for sexual activity (71.9% versus 65.6%, respectively; $P < .001$), discussing contraceptive options (44.0% versus 38.8%, respectively; $P < .008$), and delivering brief pregnancy prevention messages (62.8% versus 60.3%, $P < .03$). Post hoc analysis revealed no differences in results by training status.

Inpatient Attitudes and Practice Behaviors

Overall, 84.2% of providers agreed that initiation of a contraceptive method was appropriate in the inpatient setting. Initiation of LARC had similarly broad support, with greater acceptability for young adults compared with adolescent patients ($\bar{x} = 3.89$ [SD = 1.00] for 14–15-year-olds, $\bar{x} = 4.06$ [SD = 0.92] for 16–17-year-olds, and $\bar{x} = 4.25$ [SD = 0.86] for those older than 18 years old; $P < .001$). Providers agreed that initiation of a LARC method was appropriate, regardless of

TABLE 1 Participant Demographics and Practice Characteristics

	n (%)
Sex	
Female	197 (76.4)
Male	61 (23.6)
Race and/or ethnicity	
Asian American, Native Hawaiian, or other Pacific Islander	82 (30.0)
Black or African American	4 (1.5)
White	161 (59.0)
Multiracial	16 (5.9)
Hispanic or Latino	2 (0.7)
Declined to answer	8 (2.9)
Training status	
Resident	124 (47.9)
Fellow	47 (18.1)
Attending	88 (34.0)
Practice subspecialties	
Cardiology	11 (10.2)
Hematology and/or oncology	11 (10.2)
Critical care medicine	10 (9.3)
Gastroenterology	10 (9.3)
All other subspecialties	66 (61.1)
Years since medical school graduation	
<1	44 (17.3)
1–5	117 (46.1)
6–10	30 (11.8)
11–20	35 (13.8)
More than 20	28 (11.0)

indication for admission (63.7%); 75.4% disagreed that initiating a LARC method in the inpatient setting was appropriate only for patients with chronic illness. More than half of providers felt that AYAs would be interested in initiating a method while inpatient (55.5% and 68.7%, respectively). Fewer than 50% of physicians saw patients privately, discussed confidentiality, or asked about sexuality with AYAs in the inpatient setting. Trainees were more likely to engage in these practice behaviors than attending physicians (Table 2).

Willingness to initiate specific contraceptive methods varied, with 84.0% of providers stating that they were probably or definitely willing to initiate oral contraceptive pills, followed by the patch (70.1%), depot medroxyprogesterone acetate (67.5%), implant (63.3%), vaginal ring (61.4%), and intrauterine device (58.1%). Thirty-six percent of providers had initiated a contraceptive method for an adolescent or young adult while she was hospitalized. Combined hormonal contraceptives were most often initiated (74.0%), followed by depot medroxyprogesterone acetate (41.6%); 18.2% of providers had initiated a LARC method (10.4% were intrauterine devices, 7.8% were implants) for an AYA while hospitalized. Eighty-five percent of providers felt that having an adolescent medicine or gynecology consult would make them either somewhat or a lot more likely to initiate a contraceptive method inpatient, with 88.1% of providers stating that the same was true for initiating LARC methods.

Barriers to Initiating a Contraceptive Method

Regarding barriers to initiating a contraceptive method in general, 65.8% of providers either somewhat or strongly agreed that they had insufficient training or experience and did not see enough AYAs to maintain their skills in this area. Forty percent of participants somewhat or strongly agreed that they had insufficient time to address initiation of a contraceptive method, and 31.5% somewhat or strongly agreed that their general practice environments were not set up to maintain confidentiality. More than half said they were familiar with contraceptive methods and agreed that initiating a contraceptive method was applicable to their field. Conflict with a provider's personal beliefs did not appear to be a significant barrier to providing contraception. Barriers to initiating a contraceptive method in the inpatient setting included concerns about follow-up after discharge, maintaining confidentiality, and interference with the treatment plan (see Table 3 for additional details). There were no differences in reported barriers between trainees and attending physicians.

Unease about sensitive service laws appeared to be another barrier to contraceptive access. When asked about elements of sensitive service law, 50.7% of providers felt that parental approval was important before initiating a contraceptive method. For patients younger than 18, 34.8% of providers felt very unlikely, somewhat unlikely, or unsure that they would initiate a contraceptive method without parental knowledge. Forty percent of providers either thought that parental consent was required or were unsure of the requirements before initiating a method for someone younger than 18; 50.2% thought the same was true when asked about initiation of a LARC method.

DISCUSSION

Our results indicate that the majority of providers agree it is appropriate to initiate a contraceptive method in the inpatient setting, regardless of the reason for admission. In addition, more than one-third of providers have already initiated a contraceptive method in the inpatient setting, with 18.2% having initiated a LARC method, and many felt confident in reproductive health care screening (eg,

TABLE 2 Provider Reports of Reproductive Health Practice Behaviors in the Inpatient Setting for Adolescents and Young Adults

	Overall, Mean % (SD)	Trainees, Mean % (SD)	Attending Physicians, Mean % (SD)	*t* Test	*P*
Adolescents					
Seen privately	45.43 (38.91)	52.64 (36.76)	33.68 (40.38)	3.51	.001
Discuss confidentiality	42.15 (38.96)	49.21 (37.36)	29.91 (38.64)	3.59	<.001
Ask about sexuality	42.84 (39.61)	49.48 (37.72)	28.08 (38.78)	3.95	<.001
Young adults					
Seen privately	46.26 (43.86)	50.83 (43.56)	41.29 (43.20)	1.54	.124
Discuss confidentiality	40.42 (42.71)	45.77 (43.09)	34.12 (40.16)	1.94	.053
Ask about sexuality	41.67 (43.30)	46.61 (42.98)	31.76 (40.64)	2.48	.014

screening for sexual activity and delivering pregnancy prevention messages). However, providers were less comfortable with contraceptive counseling and less comfortable counseling adolescents compared with young adults. This may be related to concerns about confidentiality and minor consent. With this finding, we highlight a potential gap in care because contraceptive counseling is important for moving AYAs toward initiating contraception. Providers' perceived barriers to initiating a contraceptive method included insufficient training, inadequate exposure to AYAs to maintain skills, insufficient time, and a practice environment not set up to maintain confidentiality. Inpatient-specific barriers included concerns about potential interference with the treatment plan, follow-up after discharge, and lack of knowledge about confidentiality laws. This latter barrier exists despite policy statements from multiple professional societies that underscore the importance of providing confidential care for AYAs.[8–10]

There are several measures that can be taken to mitigate these barriers. First is empowering clinicians to deliver accurate information about LARC to their patients, either by providing continuing medical education on contraception or with consultation of an adolescent medicine or gynecology subspecialist.[22,23,26] These efforts should be especially focused on attending physicians because they were less confident in engaging in many of the skills needed for comprehensive reproductive care compared with trainees. Providing ongoing education on local and state confidentiality laws regarding care for AYAs may help to reduce perceived legal barriers. To address concerns about outpatient follow-up after initiation of a contraceptive method, it will be important to ensure effective and timely communication between the inpatient team and the primary care physician. Finally, institutions need to ensure that their support systems, including electronic health records and billing structures, can maintain confidentiality.[18,27] These measures are essential in increasing contraceptive use.

Limitations of this study include the following: (1) a low response rate for providers overall, although less so for trainees; this response rate is on par with similar studies[23,24,28]; (2) possible selection bias if those interested in the topic were more likely to participate; (3) a higher proportion of female respondents, although this is reflective of the sex distribution of US pediatric physicians[29]; and (4) participants were limited to those in academic medical centers, so this study may not be generalizable to other clinical settings. It is also unclear whether our finding that residents were more likely to engage in reproductive health screening behaviors with adolescents than attending physicians is related to a difference in comfort or confidence levels, residents having more time to counsel, or merely the result of a division of labor. The sample may not be reflective of more senior clinicians, although nearly one-quarter were more than 10 years out from medical school graduation. In addition, the study was based in California, 1 of 21 states (as well as the

TABLE 3 General and Inpatient-Specific Barriers to Initiating a Contraceptive Method

	Agree, %
General barriers (n = 219)[a]	
I have insufficient training or experience	65.8
I do not see enough AYAs with reproductive health issues to maintain my skills in this area	65.8
Not enough time	40.6
I am unfamiliar with different types of contraceptive methods	39.3
Not applicable to my field of medicine	31.8
My practice is not set up for confidential services	31.5
I am not comfortable prescribing due to personal beliefs	4.6
Inpatient barriers (n = 271)[b]	
I'm concerned about follow-up after discharge	43.9
I'm not comfortable myself but would be if another physician initiates a contraceptive method	29.2
I'm concerned about the ability to maintain patient's confidentiality in the hospital	23.6
I'm a subspecialist, the primary care physician should initiate a contraceptive method	21.8
I'm concerned about interference with the treatment plan	20.7

[a] The Likert response scale ranged from 1 (strongly disagree) to 4 (strongly agree); percent values shown above include the proportion of individuals who somewhat or strongly agreed.
[b] Responses were coded as the percentage of providers who agreed with the given statement.

District of Columbia) that allows all minors to consent to contraceptive services, and 1 of 13 states ensuring confidentiality for those who are insured as dependents.[30,31] Therefore, our findings may represent a best-case scenario for AYA access to confidential reproductive care and may not be generalizable to a broader population of providers. That said, many of the providers in the study had graduated from medical school within 5 years, 72.2% of whom were outside of California, and a significant proportion were unsure about the sensitive service laws as they apply to contraception.

To our knowledge, this is the first study of pediatric health care providers' perspectives on initiating contraception in the inpatient setting. Our findings reveal that providers believe initiating contraceptive methods, including LARC, in the hospital setting is acceptable. Given that adolescents are also open to starting hormonal contraception in the inpatient setting,[21] next steps should be focused on educating physicians about current recommendations regarding contraceptive care for AYAs and local and state confidentiality laws, as well as creating structures within hospital systems that allow AYAs to have access to reproductive health care in the inpatient setting.

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